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THE NEEDS OF THE NAVY.¹

BY CAPTAIN WILLIAM H. BEEHLER,
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Captain Mahan has demonstrated the influence of sea power upon history, and recent events have confirmed his arguments, showing that a thoroughly well-trained naval force is the most important factor in the efficiency of modern warfare.

Surely it is evident that should Russia even now gain command of the sea by destroying the Japanese fleet, Russia would recover all she has lost in the present war. In our last war Spain was conquered by the naval victories of Dewey and the destruction of Cervera's fleet off Santiago. All other operations were secondary and had no effect upon the result of the war.

In these wars wherein naval supremacy played such an important role a brief comparison of the strength of the belligerent navies will throw light upon the question as to what factors contributed to the superior efficiency of the victors. As regards numbers, the Spanish navy was nearly equal to that of the United States in fighting ships; while the Russian navy in this respect was vastly superior to that of Japan except at the point of contact in the Far East, where the naval forces in actual numbers of ships were about equal at the outbreak of the war. But in these battles the victors were overwhelmingly victorious, much more so than would have been believed to be possible. This superiority was entirely due to the greater ability of the victors in handling their ships and guns. The training and drill in the victorious navies before war was much greater than had been the case with their enemies. My own experience on the United States steamship *Montgomery* illustrates this. In 1896 the drill books required that the *Montgomery* should fire five-inch guns three times a minute. By diligent drills we increased the rate of fire to five times a minute in the first year and then subsequently to seven times a minute. Finally, at the bombardment of Fort Canuelo at San Juan, Porto Rico, the *Montgomery* fired 314 shells from six five-inch guns in exactly five minutes, or 300 seconds of time, or at the rate of 10.4 shots per gun per minute.

¹ This paper was read April 8, 1905.

This rapidity of fire in modern warfare was one of the controlling factors in the naval battles of the Spanish war, and as far as we know it has been likewise so in the war between Japan and Russia. This has been due entirely to diligent drill, and too much stress cannot be laid upon the importance of this drill with modern weapons.

But in order to have this drill it is obviously necessary first to have the weapons, and the modern battleship is the most formidable weapon ever built, but it can only be used efficiently by those who have been thoroughly trained. The battleships must be built, armed, equipped and drilled in time of peace, before war, because it will be almost impossible to obtain efficient battleships after war shall have been declared, and useless to begin then to train the personnel to fight them.

The modern battleship is a most wonderful instrument, and represents the highest development of the practical industrial sciences. The latest developments in every department of mechanical industry, chemistry, electricity, steam engineering, hydraulics and pneumatics contribute to the construction which shall have the greatest offensive power by its armament of the largest guns, and the greatest possible protection by means of armor.

It takes nearly four years to fully complete a modern battleship and a year or two more before her officers and crew can claim to be able to get the very best results from the ship. But it is not only necessary to have these battleships but also to have squadrons and fleets of battleships in order to be able to command the sea when disputed by any of the other great powers. In handling these squadrons of battleships the United States navy has had no experience and is at present urgently in need of opportunity to manœuvre a fleet of battleships so that the combined force will be employed to the best advantage. A study of naval tactics is evidently a most urgent necessity, and while the naval war games throw some light on this subject, it is realized by most naval officers that there is urgent necessity for elaborate and constant drill to develop a most efficient system of battle tactics. Admiral McCalla several years ago proposed a system of naval tactics which has not been adopted and which was adversely criticised by the experts with the naval war games. This system is somewhat similar to the double echelon tactics of Captain Labres, of the Austrian navy.

Without discussing the merits of these systems of naval tactics, a point is brought out to show that we have no provision for a reserve force in a naval engagement. McCalla's tactics seem to provide such a reserve, but these tactics have not been tried by any fleet, and we do not know how this reserve force can be brought into play efficiently in a naval engagement; though most battles on land have been decided by the timely appearance of the reserves. We need a large fleet to demonstrate this and other important features which we cannot expect our British cousins to tell us while they guard all their manœuvres so strictly from the eyes of foreign attachés.

The urgent necessity of a powerful navy in order to preserve the peace of the world does not admit of any argument. The question is, What do we need? The reason why we need a navy is apparent from the recent war in the East. If we consider our relations to China and Japan we may well reflect whether we can continue to exclude Chinese from the United States, or include the Japanese in the same category as the Chinese and still demand the right of Americans to trade in China and send missionaries there. If China had had a navy she would not have been obliged to let England take Hongkong, the Germans to seize Kiaochaou, France to take Tonquin, and, finally, Russia to seize Port Arthur. China is wealthy, and the Europeans seized the Chinese ports because they had the power. If the United States has not an adequate navy there is no reason why any power that feels it to be to her interest to seize any part of our territory should hesitate to do so. It is hardly probable that any European power would attempt anything of the kind at present, but we cannot expect them to keep their hands off the American continent or respect the Monroe Doctrine unless we have the force wherewith to compel this respect.

The completion of the Panama Canal in 1914 will require an adequate naval force for its protection. The force required is generally thought by officers of the United States navy to be at least fifty battleships, which should be divided into five squadrons of nine battleships each, including flagships, and one reserve for each of the five squadrons. This organization would give two squadrons each in the Atlantic and in the Pacific Oceans, with one squadron in the Caribbean Sea that could readily reinforce either the Atlantic or Pacific fleets, maintaining command of the Isthmian Canal. These

fifty battleships would require a proportion of other naval vessels which would give thirty-three armored cruisers of the Washington type, and twenty-five fast scouts, which would be transoceanic merchant steamers built for the navy but armed only in time of war. The rest of the fleet would be 100 torpedo-boat destroyers. There will be a number of auxiliaries, viz.: colliers, transports, ammunition ships, depot machine ships for repairs, distilling ships, hospital ships, and cable ships. Gunboats and cruisers not armored will be useful only in dealings with weak navies, such as those of the South American republics. No such vessels should be built in the future. The navy should confine itself entirely to the four types mentioned, namely, battleships, armored cruisers, fast scouts and destroyers. The auxiliary vessels can be obtained from the merchant marine, and obsolete battleships will be able to do all the duty against weak navies.

The proposition to build fast scouts which shall be transoceanic mail steamers, to be armed only in case of war, would provide a fleet of twenty-five fast scouts, like the *St. Paul* and *St. Louis*, capable of maintaining a sea speed of twenty-four knots. In view of the fact that the American people will not listen to any argument for subsidizing mail steamers, might it not be possible for the government to build these transoceanic mail steamers as fast military scouts, which in time of peace may be leased to private companies to operate and to maintain in condition for conversion into scouts, while carrying transoceanic passengers and mails. Something must be done to aid our merchant marine, for at this present moment there is not a single transoceanic merchant steamer being built in any shipyard in the United States, and every suggestion as to how to build up our merchant marine should be diligently considered.

Our patriotism ought to cause us to provide this navy, this fleet of fifty battleships before 1914. The United States should be at least equal to that of any other power on the high seas. The establishment of the Peace Congress at The Hague does not mean disarmament. The police of a city is necessary even when there are law courts, and The Hague Peace Congress will need an adequate police force in the shape of the navies of the world in order to enforce its decrees, and the nations that have the most to protect, the largest sea interests, the greatest sea coast, etc., should have the

largest naval force. Surely the United States navy should be equal to that of England, but England has now fifty-two battleships built, while we have but fifteen actually finished with ten more building. By 1914 England will have at least one hundred battleships, at the present rate which she is laying down these vessels. Germany completed her program for thirty-eight battleships by laying down the last one this year; while it is contemplated to double this fleet and provide for a total of seventy-six battleships by 1914.

In view of this, and of the fact that the French, Russian and Japanese navies will also be largely increased to number at least fifty battleships by 1914, the appeal I make for fifty battleships for the United States navy is surely not extravagant. During a recent cruise on the Asiatic station in command of the Monterey I saw a great deal of the Chinese, and in common with all other naval officers I realize that the Chinese, as a race, are indeed a wonderful people, endowed with the highest abilities. If the Chinese could once be aroused from the lethargy of their intense selfishness and be endowed with a patriotism such as we now see pervading Japan, the yellow peril would not be a mere nightmare.

The American people can not remain silent in the future affairs of the world. We must rise to the occasion and be so prepared for war that no nation will dare to go to war with us. During the nearly four years that I served as naval attaché in Berlin, Rome and Vienna, this doctrine of preparedness for war was constantly being asserted in Europe. The German Emperor claims to have preserved the peace of Europe for thirty years by his magnificent armies which are so efficient that no one has dared to go to war with him. He is the most enthusiastic disciple of Mahan's doctrine of the influence of sea power, and his great speech that Germany's future is upon the sea has been circulated into every hamlet throughout the German Empire.

The far-sighted German Emperor devotes his energy to the creation of a powerful navy. The wonderful growth of the German Navy League, which acquired an active membership of 600,000 within three years after it was founded, illustrates German activity in regard to sea interests. The German Navy League has branches in every town throughout the empire, and fortnightly meetings are well attended to hear illustrated lectures about the navy and maritime life to interest the inland population of the empire in naval

affairs. The ravages of the Napoleonic war and the Thirty Years' War, etc., are depicted so that for the future the Germans will want to have all their wars away from their homes upon the high seas or in the enemy's country.

Germany has only recently become a great maritime power, and has made the most rapid progress in recent years. Her navy is most efficient because in all naval affairs Germany—and the same is true of Japan—is not handicapped by conservative traditions. American machinery and manufactures are invading Germany. The German navy is up to date, all her battleships have triple screws, and they carry liquid fuel. Turbine machinery has been introduced. The Germans are far in the lead of all nations in all that pertains to torpedoes and submarine mines.

The constant drill and thorough training of the German navy personnel is admirable; but it is so exacting in minor details that some of my brother officers have questioned if the German sailor would ever rise to an emergency should anything happen not foreseen by the drill book. We are prone to disparage the intelligence of all foreigners because of the stupid appearance and conduct of immigrants just landed. The immigrants find themselves with everything about them different from that to which they were accustomed, but the foreign sailor on board of his own ship with the environment of his own fellow subjects is at home and is just as bright and quick as are the seamen of other countries in their own ships.

An instance came to my knowledge in the fall of 1901 before Prince Henry's visit. Prince Henry was cruising in his flagship, Kaiser Friederick III, in the Baltic when she struck an uncharted glacial boulder on Adler Shoal. The ship struck with great violence in the wake of a petroleum oil tank in her double bottoms. Both inner and outer bottoms were penetrated. The force of the blow forced oil up through an air-escape pipe with such violence that the pipe burst at the level of the top of the boilers and the oil flowed down and was ignited by the fires under the boilers. Flame and smoke filled the compartment, while water streamed in through the leak, but the sailors did not abandon this fire room until after they had screwed up the stiffening braces of the watertight bulkheads, after which they pumped water into the compartment through the fire mains to float the burning oil up to the ceiling of the protective deck, so that the flames were extinguished when the compartment

was entirely filled with water. Prince Henry then took the ship to Kiel. Surely there was nothing prescribed in the drill book for this emergency, and even American sailors could not have done any better.

We have a high opinion of ourselves in the United States navy, but we are conservative and have not yet introduced triple screws for our battleships, smokeless liquid fuel, nor turbine engines. We are just beginning to introduce torpedo armament in our battleships, and we must admit that we are far behind European navies in torpedo and mining warfare. We therefore urgently need these battleships now in time of peace so that we may drill with them and be fully prepared to use them in time of war.

The cost of this enormous fleet of fifty battleships with proportion of other vessels must be considered, and if we take the actual battleship as costing \$8,000,000, it will require \$400,000,000 to build the fifty battleships and probably as much more again to build the 205 other vessels (armored cruisers, scouts, destroyers and auxiliaries), or a total of \$800,000,000, ignoring the fact that we have twenty-five battleships already built and building. Eight hundred million dollars spent in ten years would require \$80,000,000 annually, or at the rate of \$1 per capita of United States population. For maintenance would be required about \$80,000,000 annually, or a total of \$2 per capita. This is naval war insurance. As compared with our naval pension since the Civil War, which has cost us annually about what this fleet of fifty battleships will cost, this naval war insurance is not expensive. The pensions represent a very small fraction of the damages done by the war, and if we do not provide this fleet now, in time of peace, a war will find us unprepared and the enemy will oblige us to pay an indemnity to reimburse him for what he had spent to build his navy.